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PTO/SB/21 (04-04)

**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Application Number	10/783,713
Filing Date	February 20, 2004
First Named Inventor	Wade, Lawrence A.
Art Unit	1734
Examiner Name	Unassigned
Attorney Docket Number	020859-003010US

Total Number of Pages in This Submission

**ENCLOSURES (Check all that apply)**

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input checked="" type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Return Postcard Statement Under 37 CFR 3.73(b) w/attached copy of assignment
Remarks    The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual name	Townsend and Townsend and Crew LLP	
	Kent J. Tobin	Reg. No. 39,496
Signature		
Date	July 20, 2004	

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Eleanor J. Taylor		
Signature	<i>Eleanor J. Taylor</i>	Date	July 20, 2004

**POWER OF ATTORNEY  
and  
CORRESPONDENCE ADDRESS  
INDICATION FORM**

<b>Application Number</b>	10/783,713
<b>Filing Date</b>	February 20, 2004
<b>First Named Inventor</b>	Wade, Lawrence A.
<b>Title</b>	SELECTIVE FUNCTIONALIZATION OF CARBON NANOTUBE TIPS ALLOWING FABRICATION OF NEW CLASSES OF NANOSCALE SENSING AND MANIPULATION TOOLS
<b>Art Unit</b>	1734
<b>Examiner Name</b>	Unassigned
<b>Attorney Docket Number</b>	020859-003010US

I hereby appoint:

☒ Practitioners associated with the Customer Number**20350**

OR

☐ Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

☒ The address associated with the above-mentioned Customer Number:

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Individual Name

Address

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Fax

I am the:

☐ Applicant/Inventor.☒ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).**SIGNATURE of Applicant or Assignee of Record**

Name Adam Cochran, Intellectual Property Counsel, California Institute of Technology

Signature

Date

07 July 2004

Telephone

626-395-4567

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.

**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Lawrence A. Wade et al.Application No./Patent No.: 10/783,713 Filed/Issue Date: February 20, 2004Entitled: SELECTIVE FUNCTIONALIZATION OF CARBON NANOTUBE TIPS ALLOWING FABRICATION OF NEW CLASSES OF NANOSCALE SENSING AND MANIPULATION TOOLSCalifornia Institute of Technology, a Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by, percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To : \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To : \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From: \_\_\_\_\_ To : \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.☐ Additional documents in the chain of title are listed on a supplemental sheet.

- ☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.8]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

07 July 2004

Date

626.345.4567

Telephone number

Adam Cochran

Typed or printed name

Signature

Intellectual Property Counsel  
California Institute of Technology

Title

# COPY

Attorney Docket No.: 020859-003010US  
Client Reference No.: CIT-3851

## ASSIGNMENT OF PATENT APPLICATION

JOINT

WHEREAS, Lawrence A. Wade of 436 Paulette Pl., La Canada-Flintridge, CA 91011; Ian R. Shapiro of 202 Parkwood Avenue, South Pasadena, CA 91107; Charles Patrick Collier of 1955 Rose Avenue, San Marino, CA 91108; Maria J. Esplandiu of 439 S. Hobart Blvd., #202, Los Angeles, CA 90020; Vern Garrett Bittner, Jr. of 517 N. Los Robles Ave., Pasadena, CA 91101; Konstantinos P. Giapis of 1111 Blanche Street, #302, Pasadena, CA 91106, hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: SELECTIVE FUNCTIONALIZATION OF CARBON  
NANOTUBE TIPS ALLOWING FABRICATION OF NEW  
CLASSES OF NANOSCALE SENSING AND  
MANIPULATION TOOLS

Filing Date: February 20, 2004

Application No.: 10/783,713; and


WHEREAS, California Institute of Technology, a corporation of the state of California, located at 1200 E. California Blvd., Pasadena, California 91125, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: 5/24/04

  
Lawrence A. Wade

Dated: 5/13/04

  
Ian R. Shapiro

Assignment

Attorney Docket No.: 020859-003010US

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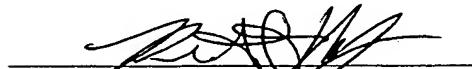
Dated: 5/13/04

  
Charles Patrick Collier

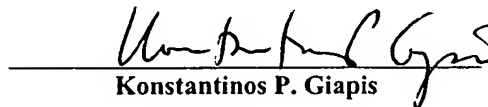
Dated: 5/13/04

  
Maria J. Esplandiu

Dated: 5/13/04

  
Vern Garrett Bittner, Jr.

Dated: 5/13/04

  
Konstantinos P. Giapis